

REMARKS/ARGUMENTS

Claims 1 and 5–14 are currently pending in this application and stand rejected. Claim 1 has been amended to incorporate the subject matter of Claim 4 and to overcome the objections raised under 35 USC § 112.

Claim 10 has been amended to cure an objection of lack of antecedent support. Claim 4 has been cancelled in view of the amendments to Claim 1.

In paragraph 1.1 of the Office Action Claim 1 was rejected under 35 USC § 112. The Examiner is asserting that:

The limitation “said rotation” in line 12 has been rendered unclear by the present amendment because more than one rotation has been discussed previously (block and base). It is therefore unclear which rotation, “said rotation” refers to.

While applicants strongly disagree with the Examiner’s conclusion that the amendment renders the term “said rotation” unclear, Subparagraph (b) of Claim 1 has been amended to remove the phrase “said rotation” and thus, hopefully remove any question as to whether the issue remains.

Claim 4 has also been objected to under 35 USC § 112 because the “tube sheet” was not positively recited as an element of the claim, merely as the object of functional recitations. The limitations of Claim 4 have been incorporated, in amended form, into Claim 1 and Claim 4 has been cancelled. As the Examiner noted, the “tube sheets” is not an element of the claim but merely the object that the elements of the claim operate upon. As amended, the grippers on each of the base member and the foot member include a gripper mechanism for forcing a gripping arm against an inside wall of the tube extending through the tube sheet when the gripper mechanism is actuated and a withdrawal mechanism that when actuated exerts a force in a direction to pull at least one of either the base member or the foot member associated with the at least the one of the grippers, toward the tube sheet when engaged to the tube extending through the tube sheet with the withdrawal mechanism and the gripper mechanism separately actuated. Thus, Claim 1 now positively recites that the grippers include at least two elements, a gripper mechanism and a withdrawal mechanism that respectively grip the tube and bias either the base member or the foot member against the tube sheet. The foregoing amendments

should overcome the Examiner's objections raised in paragraph 1.2 of the Office Action. The amendment to Claim 10 should overcome the Examiner's objection raised in paragraph 1.3 of the Office Action.

Claim 1 has been further rejected under 35 USC § 102 (b) as anticipated by Stewart (US 4,662,465). Stewart describes a vehicle comprising first and second bodies connected together, each having three or more legs with each of the bodies moveable separately. A third body connected to the first body on a spindle provides relative pivotal movement and is connected to the second body for sliding movement. The vehicle undergoes movement or walking and the combination of sliding and pivoting allows for changes in direction. In the embodiment shown in Figure 9 the spindle shaft provides for vertical movement of the first body relative to the second body. If the first body (3) is considered the foot member and the second body is considered the base member (2) as the Examiner asserts, neither the foot member nor the base member of Stewart teaches "at least one gripper for releasably gripping a tube". In addition, Stewart does not describe, teach or show a gripper having a gripper mechanism and a withdrawal mechanism as called for in paragraph (e) of Claim 1 as now amended. Accordingly, Claim 1 should not rightfully be considered as anticipated by Stewart, since as demonstrated above, Stewart fails to teach a number of the elements of Claim 1.


Claims 1, 5-6, and 10-12 and 14 are rejected under 35 USC § 103(a) as being unpatentable over Adamowski (US 4,298,054) in view of Stewart. The Examiner asserted that Adamowski discloses a base member (14) having an inspection device (15), at least one gripper (11b), a block member (10), movable in two perpendicular linear directions, in horizontal and vertical directions (f1 and vertical), a foot member (at 12a) having a gripper (11a) for drawing the manipulator toward the tube sheet. However, *arguendo*, even if Applicants accept the foregoing, the analogy does not read on Applicants' Claim 1. If the member 10 of Adamowski is the block member and the member 14 is the base member, then the base member is not directly connected to the block member as required by paragraph (b) because they each move vertically independently of each other. The reference does not teach how the two are connected other than possibly through the frame 9. Additionally, the Examiner is calling the foot member member 12a, which is the hydraulic drive for the gripper 11a. If that is the case,

it cannot satisfy the requirement in paragraph (c) of Claim 1 that the foot member be directly connected to the block member for linear movement relative thereto, because the member 12a is directly attached to the member 10, which the Examiner has called the block member and thus moves with the member 10 and not relative to the member 10. Furthermore, as the Examiner noted Adamowski fails to teach that the block member is rotably connected to the base member. Accordingly, contrary to the Examiner's conclusion the reference fails to teach the orientation of the main components of Applicants' Claim 1. While Stewart teaches the rotation of one member with respect to the other, it certainly is not clear from Adamowski why Adamowski would want to implement this additional degree of complexity since it is not necessary to satisfy Adamowski's objective of moving the Adamowski manipulator around the tube sheet in the configuration taught by Adamowski. Furthermore, it is not clear how the rotational arrangement of Stewart can be implemented within a design of Adamowski to make the Adamowski member 14 rotate with respect to the member 10 within the frame 9 without a total redesign of Adamowski that essentially does away with the frame. Furthermore, neither Stewart nor Adamowski teach grippers on each of the base member and the foot member that includes a gripper mechanism and a withdrawal mechanism. For these many reasons it should be clear that Claims 1, 5-6, 10-12 and 14 should not rightfully be considered obvious over Adamowski in view of Stewart. Claims 5-6, 10-12 and 14 are dependent either directly or indirectly on Claim 1 and for the same reasons should not rightfully be considered obvious. Neither the teachings of Shunichi (US 4,070,561) noted in paragraph 2 of the Office Action with respect to Claim 7 or Ward (US 3,913,452) noted in paragraph 3 of the Office Action with respect to Claims 12-13 cure the deficiencies noted above for Adamowski and Stewart. Claims 8-9 had been previously allowed.

Accordingly, Applicants have shown wherein Applicants' amended Claims 1 and 5-14 distinguish over the references, considered either singly or in combination, and should not rightfully be considered obvious. Thus, reconsideration, allowance and passage to issue of this Application are respectfully requested.

If any amounts or credits are due for this application, please charge or credit deposit account 02-2556, as appropriate.

Respectfully submitted,

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